CLAIMS

What is claimed is:

1 1. A method for using a computer to emulate a remote console for connection to a

2 target device, wherein the computer has an output screen and wherein the target device

3 has a serial port and a target device platform, the method which comprises the steps of:

4 (a) opening a connection through a wire to the serial port on the target device;

5 (b) automatically recognizing the target device platform;

6 (c) building menus, drop-down lists, or shortcuts according to the target device;

7 (d) entering commands on the computer;

8 (e) entering commands on the computer via the menus or the shortcuts;

9 (f) sending commands to the target device via the serial port;

10 (g) receiving output from the target device;

11 (h) displaying the output on the output screen; and

12 (i) running an instant messaging client in parallel;

13 wherein the target device does not distinguish the computer from a remote console.

1 2 The method of Claim 1 wherein the target device is a server.

1 3. The method of Claim 1 wherein the target device comprises a command line interface

2 port.

1 4. The method of Claim 1 wherein the target device is an embedded system.

1 5. The method of Claim 1 wherein the computer is a handheld computer.

1 6. The method of Claim 1 wherein the commands are in ASCII format and the output is in

2 ASCII format.

1 7. The method of Claim 1 wherein the remote console is a full function terminal and

2 wherein the commands in ANSI format and the output is in ANSI format.

1 8. The method of Claim 7 wherein the target device comprises a command line interface

2 port and the command line interface is selected from the group consisting of DOS prompt, korn

3 shell, sh, bash, tcsh, prom monitor, VT100.

1 9. The method of Claim 7 which further comprises the step of enabling full functioning of

2 standard terminal editors such as vi and emacs.

1 10. A computer for emulating a remote console for connection to a target device, wherein the

2 target device has a serial port and a target device platform, the computer comprising

3   an output screen;

4   a connector capable of connecting through a wire to the serial port on the target device;

5   menus, drop-down lists, or shortcuts according to the target device; and

6   an instant messaging client;

7 wherein the computer is capable of: automatically recognizing the target device platform;

8 receiving entered commands; receiving entered commands via the menus or the shortcuts;

9 sending commands to the target device via the serial port; receiving output from the target

10 device; displaying the output on the output screen; running the instant messaging client in

11 parallel; and

12 wherein the target device is not capable of distinguishing the computer from the remote console.

1   11   The computer of Claim 10 wherein the target device is a server.

1   12.   The computer of Claim 10 wherein the target device comprises a command line interface

2   port.

1   13.   The computer of Claim 10 wherein the target device is an embedded system.

1   14.   The computer of Claim 13 wherein the embedded system is a vending machine, an

2   automobile, medical equipment, a cable box, a security system, a home monitoring system, an

3   entertainment equipment, or a home appliance.

1   15.   The computer of Claim 10 wherein the commands are in ASCII format and the output is

2   in ASCII format.

1   16.   The computer of Claim 10 wherein the remote console is a full function terminal and

2   wherein the commands are in ANSI format and the output is in ANSI format.

1   17.   The computer of Claim 10 which further comprises a full functioning of standard

2   terminal editor such as vi and emacs.

1   18.   A method for using a computer to emulate a remote console for connection via a server to

2   a target device, wherein the computer has an output screen and a wireless modem and wherein

3   the target device has a serial port and a target device platform, the method which comprises the

4   steps of:

5   (a)   opening a virtual socket to the server through the wireless modem;

6   (b)   opening a connection between the server and the target device;

7 (c) automatically recognizing the target device platform;

8 (d) building menus, drop-down lists, or shortcuts according to the target device;

9 (e) entering commands on the computer;

10 (f) entering commands on the computer via the menus or the shortcuts;

11 (g) transporting the commands to the target device via virtual socket and the server;

12 (h) receiving output from the device via the virtual socket and the server;

13 (i) displaying the output on the screen of the computer; and

14 (j) running an instant messaging client in parallel;

15 wherein the target device does not distinguish the computer from a remote console.

1 19. The method of Claim 18 wherein Step (b) uses a telnet, secured shell ssh, ssh2, or ssh3,

2 or file transfer protocol.

1 20. The method of Claim 18 wherein the computer is part of a virtual private network.

1 21. The method of Claim 18 wherein the commands are Unix, OS, or prom monitor

2 commands.

1 22. A computer for emulating a remote console for connection via a server to a target device,

2 wherein the target device has a serial port and a target device platform, the computer comprising

3   an output screen;

4   a wireless modem;

5   a connector capable of opening a virtual socket to the server through the wireless modem

6   and allowing a connection between the server and the target device;

7   menus, drop-down lists, or shortcuts according to the target device; and

8   an instant messaging client;

9   wherein the computer is capable of: automatically recognizing the target device platform;

10   receiving entered commands; receiving entered commands via the menus or the shortcuts;

11   sending commands to the target device via virtual socket and the server; receiving output from

12   the target device via the virtual socket and the server; displaying the output on the output screen;

13   running the instant messaging client in parallel; and

14   wherein the target device is not capable of distinguishing the computer from the remote console.

1   23.   The computer of Claim 22 the target device comprises a hub, a router, a switch, a bridge,

2   a repeater, a gateway, a firewall, interactive television hardware, a manufacturing hardware, a

3   robotics, or an animatronics.

1   24.   The computer of Claim 22 wherein the computer is a handheld computer.

1   25.   A method of providing a server system capable of connecting to computer emulating

2   remote consoles for connection to target devices, the method which comprises the steps of:

3   (a)   hosting a database of settings, wherein settings comprises alarm thresholds

4   and preferences regarding monitoring, connection, or messaging;

5   (b)   providing each connected computer with a user interface to modify

6   settings;

7   (c)   enforcing security on all activities by passwords, certificates, or hardware

8   identification;

9   (d)   pinging any targeted device;

10   (e)   monitoring all targeted devices according to a specification or service

11   level agreement;

12   (f)   monitoring network congestion;

13   (g)   providing an instant update on all monitored systems and/or network

14   congestion upon request;

15   (h)   firing alarms when a parameter reaches an adjustable threshold;

16   (i)   diagnosing target device problems and inefficiencies;

17   (j)   hosting interactive troubleshooting programs along with Frequently Asked

18   Questions and Online Help applications; and

19   (k)   running an instant messaging server in parallel to other processes;

20   wherein the server is capable of maintaining and initiating multiple connections.

1   26.   The method of Claim 25 wherein the computers are emulating different types of remote

2   consoles and the system can process in parallel.